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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,530	08/25/2003	Joshua William Caldwell	50019.239US01/P05637	4651

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EXAMINER
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ZWEIZIG, JEFFERY SHAWN

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/648,530

**Applicant(s)**

CALDWELL, JOSHUA WILLIAM

**Examiner**

Jeffrey S. Zweizig

**Art Unit**

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 2,10 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 8, 9, 11, 15, 16, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rusznyak (USPN 4,697,097).

Fig. 1 shows a current source Q0/Q1 and a comparator Q2/Q4 (any circuit with a threshold can be seen as a comparator) arranged and functioning with currents as recited in claims 1 and 8. For example, the current through Q1 could be seen as the first current, the current through Q2 could be seen as the second current and the current through Q4 could be seen as the third current.

Further shown is a gain stage Q5/Q6 as recited in claim 3.

Claims 9, 11, 15, 16, 18 and 20 are anticipated for the reasons above.

3. Claims 1, 3-9, 11-16 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chung (USPN 5,959,477).

Fig. 3 shows a current source 4 and a comparator 6 and/or 8 (any circuit with a threshold can be seen as a comparator) arranged and functioning with currents as recited in claims 1 and 8. For example, the current through 12 could be seen as the first current, the current through 14 could be seen as the second current and the current

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through 22 could be seen as the third current. Or for example, the current through 14 could be seen as the first current, the current through 22 could be seen as the second current and the current through 32 could be seen as the third current.

Further shown is a gain stage 10 as recited in claim 3.

Further show is a current mirror 12/14, a first transistor 16, a second transistor 18 and a resistance 20 as recited in claim 4.

Further show is a current mirror 22/32, a first transistor 26, a second transistor 34 and a resistance 28 as recited in claim 5.

Further shown is a first resistance 20 and a second resistance 28 defining scaled currents as recited in claims 6 and 7.

Claims 9, 11-16 and 18-20 are anticipated for the reasons above.

### ***Conclusion***


4. Claims 2, 10 and 17 are objected to as being dependent upon a rejected base claim, but may be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey S. Zweizig whose telephone number is (571) 272-1758. The examiner can normally be reached on Monday thru Thursday 6:00 am to 4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeffrey S. Zweizig  
Primary Examiner  
Art Unit 2816

JZ